

PLANTAGO CORONOPUS (PLANTAGINACEAE) NEW TO TEXAS

Plantago coronopus L., native to Europe and the Mediterranean area (Chater & Cartier 1976), was reported as naturalized in California (Dempster 1993). In the eastern United States it has been variously described as rarely adventive on ballast heaps at seaports (Gleason 1952), occurring sporadically about ports without persisting (Fernald 1950), and as a repeated introduction in ballast that does not become established (Gleason & Cronquist 1991). It was not reported in standard floras of the southeastern United States (e.g., Small 1913; Radford et al. 1968), or in the floras of Missouri (Steyermark 1963), New Mexico (Martin & Hutchins 1981), Great Plains (McGregor & Brooks 1986), Arkansas (Smith 1994), Oklahoma (Taylor & Taylor 1994), or Texas (Correll & Johnston 1970). It was also not included in more recent works on Texas plants such as Hatch et al. (1990) or Jones et al. (1997), nor was it listed by Rosatti (1984) in his treatment of Plantaginaceae for the Generic Flora of the Southeastern United States.

As part of the collecting effort for the forthcoming *Shinners & Mabler's Illustrated Flora of North Central Texas* (Diggs et al., forthcoming), a collection made in 1998 in Fort Worth (Tarrant County) is apparently the first documented occurrence of this species for Texas.

Voucher specimen: TEXAS. Tarrant Co.: weedy area in landscape, 301 Crestwood, Fort Worth, 24 May 1998, O'Kennon 14221 (BRIT).

At the collection locality numerous individuals were observed as landscape weeds and other individuals were observed in nearby weedy areas. The mode of introduction is unclear, but seeds were possibly introduced with landscape plants. Introduction could also have occurred through spread from intentional cultivation. Since 1997, seeds of *Plantago coronopus* have been offered by Johnny's Selected Seed Company for the specialty salad green market under the name "Minutina" or "Erba stella" and, until recently, seeds were sold by the Ornamental Edibles Seed Company as an "edible landscape plant." Other north central Texas populations have not been found and it is unclear whether the species will become more widely established. However, some individuals were very robust, with one having 65 inflorescences. Also, the species is self-compatible (Delden et al. 1992) and is tolerant to drought, soil compaction, and competition (Mook et al. 1992). The seeds are highly viable and germinate well in soils with low moisture content (Blom 1992).

This species, commonly known as buck-horn plantain, differs from all other plantains occurring in Texas in having deeply pinnately lobed leaves, short hairs on the corolla tubes, and 3- or 4-locular capsules. Other members of the genus occurring in the state have leaves entire or with few teeth or shallow lobes, corolla tubes glabrous, and 2-locular capsules.



FIG. 1. Habit of *Plantago coronopus* (with permission from Gleason 1952).

Plantago coronopus (Fig. 1) can be recognized by the following description (Butcher 1961; Gleason 1952; Chater & Cartier 1976; Dempster 1993; Rahn 1996): Pubescent annual or biennial with a taproot and leaves in a basal rosette; leaves closely spreading on the ground or ascending, linear to lanceolate in outline, 4–25 cm long, with spreading-ascending, acute, \pm linear lobes, the lobes sometimes toothed or lobed; inflorescences sometimes numerous, 5–50 cm long including the leafless, densely hairy peduncle terminated by a narrowly cylindrical, dense spike to ca. 12.5 cm long; bracts usually not surpassing the flowers, broadly scarious-margined at base, the keel prolonged into an acuminate tip; corolla tubes covered with short hairs; petals acute; stamens 4; capsules 3- or 4-locular; seeds 3–5 per capsule, dimorphic, one per locule, ca. 1.5 mm long, and one smaller than the others, ca. 0.5 mm long, occurring in an upper compartment in the ovary on the abaxial side; flowering late Apr–Sep.

—Robert J. O'Kennon, *Botanical Research Institute of Texas, 509 Pecan Street, Ft. Worth, TX 76102, U.S.A., bokennon@brit.org*; George M. Diggs, Jr., *Department of Biology, Austin College, Sherman, Texas 75090, U.S.A. & Botanical Research Institute of Texas, gdiggs@austinc.edu*; and Ronald K. Hoggard, *Department of Biology, University of Central Oklahoma, Edmond, OK 73034, rhoggard@ionet.net*.

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